ABSTRACT

An application programming interface (API) allows applications (e.g., applets) at a digital television terminal to recover System Information (SI) from a digital transport stream without regard to the specific SI format. The API abstracts the relevant portions of the SI to provide it in a generic, usable format. The system is suitable for use, e.g., with SI formats including MPEG Program Specific Information (PSI), DVB SI, ATSC Program and System Information Protocol (PSIP), Cable SI such as Digital Video Standard 234, and private SI. In an optional embodiment, asynchronous delivery of SI is provided for SI that is not immediately available in the terminal's memory. Additionally, the API can further abstract the SI so that it is independent of the specific transport stream format (e.g., MPEG-2). Moreover, incremental retrieval of SI data is provided by allowing an application to obtain a small subset of the SI that is available at the terminal, analyze it, and retrieve additional SI if required based on the analysis. The API includes a navigation package (110), a program guide package (120), a program selection/tuning package (130), a descriptor package (140), a utility package (150), a data package (160), and a pipeline package (170).